A Review of Lepidoptera in Britain during 1977<sup>1</sup> By C. G. M. DE WORMS, M.A., Ph.D., F.R.E.S.<sup>2</sup>

The year opened once more with on the whole a very mild winter for the fourth year in succession. There was little snow and an average start to the season as regards the appearance of most of the early species of moths. The sallow blossom was well out by mid-March, but it was in the first week of that month that a most remarkable immigration took place, of which the like had not been observed in this country so early in the year since a somewhat similar one in 1952. Ouite a number of Painted Ladies were seen over the south of England at this period, together with several records of Macroglossa stellatarum L. Among the rarer captures of migrant moths were a few Heliothis peltigera D. & S., Rhodometra sacraria L., a single Eublemma parva Hbn. from Weston-super-Mare, and at least three Eublemma ostrina Hbn. from as far apart as South Devon, Oxford and the Chiddingfold area in Surrey. All these insects seem to have appeared between the 1st and 5th of March when apparently there was a very warm airstream coming direct from western Spain and the Canaries to the British Isles. This combination was most conducive to a very extensive migration (vide Ent. Rec., 89: 126 seq.). Both March and April were relatively mild, but it soon became apparent that insects in general were nothing like in as big numbers as they were in the same period of 1976, nor as early in appearance. However, as was hopefully expected, Nymphalis antiopa L. reappeared in the spring after hibernation in a similar fashion as it did in the year following the great incursion of 1872. After the circa 300 records in Great Britain in the late summer of 1976, at least fourteen Camberwell Beauties were observed, mainly in March and April of 1977. Most of these records came from the more western regions of England, but there is no evidence of this fine insect having bred naturally in this country. As to the regular spring species, Anthocharis cardamines L. was quite plentiful during May, while Celastrina argiolus L. once more had quite a prolific first brood. Hemaris fuciformis L. was also very much on the up-grade again with as many as fifty being seen in the Chiddingfold area in a single day. Its relative H. tityus L. was equally numerous in Ireland at this period. But the hopes of a really prolific season were dashed by the inclement conditions prevailing during most of June, with the result that dates of average emergence were put back in many instances for quite a fortnight, and certainly in the south of England where numbers seen at m.v. moth traps were the lowest for several years, a great contrast to a similar period in 1976. However, it was a very different story in the west where, especially on the Welsh coast, huge concourses of moths were recorded at light traps during early July with well

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Three Oaks, Shores Road, Horsell, Woking, Surrey.

over 2,000 individuals a night, though the predominant species were Agrotis exclamationis L. and Apamea monoglypha L. It was at this time of the year that a further investigation was made into the prevalence of the newly-discovered little noctuid Eriopygodes imbecilla Hbn. in its restricted haunts in South Wales. It proved to be comparatively abundant, being seen flying by day mainly in the afternoon sunshine and mostly at higher levels up to 2,000 ft., while at night it came freely to light in some plenty. Captured females produced batches of ova from which the ensuing imagines were bred out in the autumn. It would seem that this agile species should be widespread over much of the mountainous regions in that part of Wales, but as yet it has not been observed outside its original locality. July turned out a much more congenial month, but the main sequence of the woodland butterflies was well behind schedule. Apatura iris L. only appeared in the latter half of July, nearly a month later than it did in 1976. This was the pattern for most of the other summer species. Argynnis paphia L. was again quite plentiful on the Surrey-Sussex border and in a good many other localities, but the males were only well out in the third week in July. It was a similar story with A. aglaia L. which was also quite abundant on the Surrey downs, also in the Salisbury Plain region, and especially in West Wales. The Blues did not fare too well. Plebeius argus had hardly recovered from the devastating fires of 1976 in many of its heathland haunts. Lysandra coridon Poda was in much lower numbers than normal, only appearing very late in July and continuing almost into the autumn. During August, another quite warm month, Maniola tithonus L. was in exceptional numbers over most of the south of England, together with the little Skipper Thymelicus sylvestris Poda. Towards the end of the month, an occasional Nymphalis polychloros L. was seen in singles, with one at Folkestone on buddleia, and even another on it in one of the squares in Central London, while it reappeared in one or two places in the Eastern Counties, though some of these may have been migrants. Some of the Vanessids became especially numerous at this period, in particular Inachis io L. of which one observer saw as many as forty together on the buddleia in his garden in Surrey. Pyrameis atalanta L. too seems to have had a good year, mostly in the West country, where in the region of the Lizard Luperina nickerlii leechi Goater was again quite plentiful in its restricted haunts. But there was hardly any migration in those parts and nothing to compare with that of 1976, with a complete absence of the larger Sphingids such as Herse convolvuli L. During this period the small noctuid Caradrina ambigua D. & S. was in spate, with successive generations carrying on well into the autumn. September was another quite congenial month with warm days almost throughout. The buddleia bushes continued to be patronised by more Vanessids than in 1976, with the addition of quite a good showing of Polygonia c-album L., Aglais urticae L. and a few P. cardui L. At the end of the month, a Lampides boeticus

L. was distinctly observed on the outskirts of London. This may have been the prelude of another migration, somewhat on a similar pattern as that in March. But the main influx seems to have been during the latter part of October, yet another quite mild period. A few Colias croceus Fourc. had also been seen in late August and well on into September, both inland in Surrey and on the Isle of Wight. But the later migration was heralded by quite a number of Leucania vitellina Hbn., which was recorded on the south coast in small numbers and as far inland as Oxford, Surrey and North Norfolk. A few L. albipuncta D. & S. were also seen at this period. Heliothis peltigera D. & S. reappeared with apparently a single record of Plusia orichalcea Fab. in Sussex. Among the geometers there were several Rhodometra sacraria L. noted, also a few Nycterosea obstipata L. and at least six records of Cosymbia puppillaria Hb., all in the southern counties. A few H. convolvuli came in, with one penetrating to the island of Hoy in Orkney in late October. There was quite a phenomenal invasion apparently of Phlogophora meticulosa L., over a large portion of the southern counties at this period. However, yet another immigrant at that time which had hardly been seen since the mid-1960's, was the striking white pyrale Palpita unionalis Hb., which was seen at light in some plenty, especially in the south-eastern parts of the country. Some other sporadic migrants only lately reported, included an example of Coscinia cribraria L. ssp. arenaraia Lempke, taken on the Isle of Sheppey in mid-July. This foreign form of our Speckled Footman has only very occasionally visited our islands. But possibly by far the most spectacular moth to do so in 1977, was a specimen of Ochropleura fennica Tausch., taken in Aberdeenshire in late August, at the same time as a large immigration of Eurois occulta L. to the eastern seaboard of Scotland. There have apparently only been two other authentic records of this northern species. The first was near York about 1850, and the second in 1972 in Middlesex, not far from London Airport. The autumn saw some interesting records, showing the spread of those two cypress-feeding species Lithophane leautieri Boisd. and Eupithaecia phoeniceata Rambur. This latter small Pug, only discovered in Britain in 1959, and for a time considered quite a seaboard insect, has now penetrated as far inland as Wimbledon on the outskirts of the Metropolis. L. leautieri seems to be spreading rapidly annually, having been now taken well north of London and as far east as Dover. The autumn moths were generally in fair abundance, though few Ptilophora plumigera D. & S. were seen. The mildness of December tempted out several Phigalia pedaria Fab. well before Christmas.

As was to be expected, 1977 was not likely to compare in abundance of insects with that of its predecessor. In fact it was generally conceded that many species were in much smaller numbers than usual, and with a very later emergence. Migrants were on the whole few in number, though there was

a distinct immigration in early March and again in the latter half of October, with very little in between. The sighting of several *Nymphalis antiopa* L. in the spring was a gratifying legacy from the great 1976 invasion, with at least two recorded in the summer. 1977 can be counted as one of the less prolific years in recent times and in the present decade.

Monmouthshire Lepidoptera in 1977. — In marked contrast to the previous year, 1977 was a disappointing one for Lepidoptera in Monmouthshire. Migrants particularly, were in very depleted numbers. I saw only two Cynthia cardui L., one on May 10th and another on September 8th. Single specimens of Vanessa atalanta L. were noted on August 28th and October 1st. Autographa gamma L. and Phlogophora meticulosa L. were much less numerous in the autumn than usual, the latter species reaching its maximum numbers on October 14th when 49 came to my garden m.v. trap. Not a single Agrotis ipsilon Hufn. was seen during the year. However, the spell of mild weather with south-westerly winds in October produced here, as elsewhere in the country, an influx of Palpita unionalis Hübn. One & came to my m.v. trap on October 16th, two 99 on October 18th, and finally two 99 and one & on October 20th. There was also a & Orthonama obstipata Fabr. on October 18th.

However, among the resident Lepidoptera there were some compensations for the poor year generally. 1977 proved a good year for Ladoga camilla L., Argynnis paphia L. and Celastrina argiolus britanna Verity. The first species was especially plentiful in its usual haunts near Monmouth and it was also recorded from a new locality in the south of the

county.

Eriopygodes imbecilla Fabr. was seen in some numbers

at its one known station.

Some of the more noteworthy insects which came to my garden m.v. trap were: Orthosia opima Hübn. (scarce in Monmouthshire) March 25th (1), April 20th (1). Egira conspicillaris L., May 28th (3, 1)—second county record. Clostera curtula L., May 28th (1), August 10th-13th (5). Peridea anceps Goeze, May 28th (1)—infrequent in central Monmouthshire. Harpyia bicuspis Borkh., June 23rd (1), 24th (1). Perizoma blandiata blandiata D. & S., July 7th (1)—scarce in Monmouthshire. Cryphia muralis muralis Forst., July 21st (1), August 11th (2), 14th (1). Pammene aurantiana Staud., August 1st (1). Deileptenia ribeata Clerck, August 10th (1). Ptycholomoides aeriferanus H.-S., August 13th (1).

Hopefully, 1978 will be a more rewarding year, and perhaps the recent sighting of a & Gonepteryx rhamni rhamni L. flying in my garden on the early date of March 4th, will prove a good omen for the coming season. — Dr. G. A. Neil

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